Dual channel digital thermometer TMDT 1300

Application
The TMDT 1300 is a highly accurate, hand-held thermometer, which can be used with a wide range of probes for various industrial and laboratory applications. Typical examples are temperature measurements of bearings and motors, liquids and semi-solid materials, freezers, moving and rotating parts of machinery, molten non-ferrous metals, pipes, etc.

Description
The temperature can be displayed either in Celsius or Fahrenheit from -50 to 1300 °C (-50 to 1999 °F). The accuracy is independent of the ambient temperature due to an internal compensation for the temperature of the cold junction. A flexible rubber sleeve protects the housing of the TMDT 1300, and thereby protecting the electronics, in case of impact. The TMDT 1300 is also equipped with a retractable support, which allows the thermometer to stand, on its own, while measuring the temperature. The TMDT 1300 is supplied complete with the SKF standard surface probe TMDT 2-30, battery, instructions for use and a calibration certificate. All packed in a sturdy plastic case.

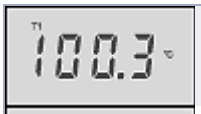
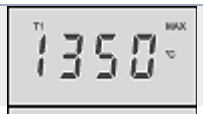
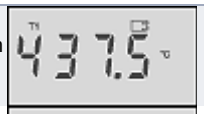
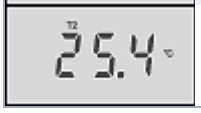
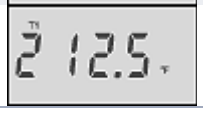
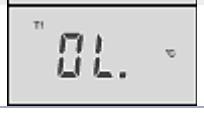
Measuring principle
The SKF thermometer TMDT 1300 uses a thermocouple, consisting of two dissimilar metallic conductors (NiCr and NiAl) joined end to end. The junction creates a thermo-electric voltage when heated. The strength can be translated by the electronics to an accurate temperature measurement.

Features
- The thermometer has two different input channels and can accordingly also measure temperature differentials. Other functions of the thermometer are HOLD, MAX and 0,1° / 1° resolution in both °C and °F.
- Low battery as well as broken probe connection is indicated directly on the display.
- The instrument is also provided with a memory in order to remember all selections even when being switched off.
- Re-calibration is not necessary.
- The instrument also gives an output signal to a data-logger or temperature recorder

Technical data

Designation	**TMDT 1300**
Description	Dual channel digital thermometer
Instrument colour	Dark / light grey
Contents	1 x dual channel digital thermometer 1 x standard surface probe Instructions for use Carrying case
Temperature range	-50 to 1300 °C (-50 to 1999 °F)
Display resolution	Up to 199 °C/F: 0,1 °C/F Greater than 199 °C/F: 1 °C/F
Accuracy electronics	± 0.3% + 1 °C at range -50 up to 199,9 °C ± 0.5% + 1 °C at range 200 up to 1000 °C ± 0.75% + 1° C at range 1001 up to 1300 °C ± 0.3% + 2 °F at range -50 up to +199,9 °F ± 0.5% + 2 °F at range 200 up to 1999 °F
Temperature compensation	Automatic
Analogue output	0.1 mV per °C/F at resolution 1 °C/1 °F 1.0 mV per °C/F at resolution 0.1 °C/0.1° F
Output impedance	50 Ohms
Battery	9 V Battery IEC 6 LR61 (Alkaline)
Battery life time	100 hours (average)
Temperature probe	Thermocouple, K-type (NiCr/NiA1)
Display	LCD
Housing material	ABS
Environmental operation limits	0 to 50 °C (32 to 122 °F), 0 to 80 R.H.
Instrument dimensions	160 x 77 x 45 mm (6.3 x 3.0 x 1.8 in)
Case dimensions	275 x 230 x 82 mm (10.8 x 9.0 x 3.2 in)
Weight including battery	300 g (0.66 lbs)
Weight including carrying case	830 g (1.8 lbs)

TMDT 1300 Functions

	Probe		Temperature				
	connection T1		difference T1 - T2		Hold maximum reading		Low battery indication
	Probe connection T2		Hold last reading		Switchable °C / °F		Overload indication

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